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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

MULTI-STATE INITIATIVES---AGRICULTURE SECURITY PREPAREDNESS

by

Ellen M. Gordon

June 2004

Thesis Advisor: Paul Stockton
Second Reader: James A. Roth

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To defend American agriculture against foreign or domestic terrorism, it is essential that states build multi-state partnerships to provide for the collaborative plans, programs and operations needed to protect the nations food security. The National Homeland Security Strategy puts states on the front lines in the war against terrorism---including the struggle to secure the agriculture industry from potentially devastating attack. The issues surrounding agro-terrorism are vast and complex and the resources of the Federal government to address these issues are limited and overextended. If states attempt to address this threat independently, important opportunities to reduce vulnerability and enhance capability will be lost. To achieve the capabilities needed for agro terrorism detection, mitigation, preparedness and response, states must collaborate to build the partnerships and programs their citizens require. This thesis argues multi-state partnerships are critical to defeating this threat as well as providing a robust response to an attack. Whether intentionally introduced or naturally occurring , infectious diseases can easily cross state borders before an outbreak is even detected. States must be prepared to act quickly to mitigate the effects of any crisis. There is a significant opportunity for states to strengthen their abilities to provide for a stronger agriculture counter terrorism preparedness system. The states can further their ability to combat attacks on agriculture actively by demonstrating leadership in implementing administrative agreements and ultimately adopting compact(s) between states as well as with the private sector.

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MULTI-STATE INITIATIVES----AGRICULTURE SECURITY PREPAREDNESS

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN SECURITY STUDIES
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ABSTRACT

To defend American agriculture against foreign or domestic terrorism, it is essential that states build multi-state partnerships to provide for the collaborative plans, programs and operations needed to protect the nations food security. The National Homeland Security Strategy puts states on the front lines in the war against terrorism---including the struggle to secure the agriculture industry from potentially devastating attack. The issues surrounding agro-terrorism are vast and complex and the resources of the Federal government to address these issues are limited and overextended. If states attempt to address this threat independently, important opportunities to reduce vulnerability and enhance capability will be lost. To achieve the capabilities needed for agro terrorism detection, mitigation, preparedness and response, states must collaborate to build the partnerships and programs their citizens require. This thesis argues multi-state partnerships are critical to defeating this threat as well as providing a robust response to an attack. Whether intentionally introduced or naturally occurring, infectious diseases can easily cross state borders before an outbreak is even detected. States must be prepared to act quickly to mitigate the effects of any crisis. There is a significant opportunity for states to strengthen their abilities to provide for a stronger agriculture counter terrorism preparedness system. The states can further their ability to combat attacks on agriculture actively by demonstrating leadership in implementing administrative agreements and ultimately adopting compact(s) between states as well as with the private sector.

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Finally, I would like to thank Governor Tom Vilsack for his commitment and support in the Multi-State Partnership, as well as his overall support for Homeland Security.

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I. INTRODUCTION

To defend American agriculture against foreign or domestic terrorism, it is essential that states build multi-state partnerships to provide for the collaborative plans, programs and operations needed to protect the nations food security. The President's National Homeland Security Strategy puts States on the front lines in the war against terrorism---including the struggle to secure the agriculture industry from potentially devastating attack. The issues surrounding agro-terrorism are vast and complex and the resources of the Federal government to address these issues are limited and overextended. If states attempt to address this threat independently, important opportunities to reduce vulnerability and enhance capability will be lost. For example, given the highly contagious nature of the Foot and Mouth Disease as well as many other potential weapons of agro-terrorism, it is most certain the consequences of an attack on one state will soon affect others. To achieve the capabilities needed for agro-terrorism detection, mitigation, preparedness and response, states must collaborate to build the partnerships and programs their citizens require.

What is desirable in not always politically easy. Practically every state in the nation utilizes an interstate compact or an interstate administrative agreement to achieve mutually agreed objectives. However, as in many areas of Homeland Security, (where the nation faces new challenges in developing the strategies, plans and organizational structures to address the threat of terrorism), states have virtually no experience in building partnerships to defeat agro terrorism. Bureaucratic inertia and fear of the new state involvement may place a serious impediment to the development of inter-state partnerships to address agro-terrorism.

This thesis explains why and how those impediments must be overcome. The author explains why, given the nature of the threat, multi-state compacts or agreements are necessary for success. The author also analyzes the goals and components that inter-state initiatives must incorporate in order to be effective. In addition, there is an examination of the process by which states can be brought into collaborative relationships, despite the political difficulties of doing so.

The threat of agro-terrorism is severe. The vulnerabilities are many. An attack on American agriculture, even one that might be considered minimal and isolated, could have far-reaching economic ramifications in markets worldwide. An economic attack on America becomes an economic attack upon the rest of the world. Essentially, an American vulnerability in agriculture will become a global vulnerability in agriculture. USDA officials estimate that a single agro-terrorist attack on the livestock industry using a highly infective agent could cost the U.S. economy between $10 billion and $30 billion.[1] As this level of impact ripples across international livestock markets, the global impact of an attack on America's livestock could reach into the hundreds of billions of dollars.

This thesis argues multi-state partnerships are critical to defeating this threat as well as providing a robust response to an attack. Whether intentionally introduced or naturally occurring , infectious diseases can easily cross state borders before an outbreak is even detected. States must be prepared to act quickly to mitigate the effects of any crisis. To be effective the partnership should have strong principles and objectives. It should create a system for states to participate in joint planning, education, training and exercise opportunities to build a unified approach in building state and federal surveillance and response capacity; it should promote awareness of agro-security issues within all levels of government; it should improve coordination and information sharing among agencies at the federal, state and local levels to prevent and respond as well as develop joint strategies for maintaining public and consumer confidence. The over all goals of the Multi-State Partnership for Security in Agriculture are to collaborate in preparedness and reduce duplication of efforts in agriculture security.

For some government officials, the task of building and implementing a multi-state agreement for such a complex issue might at first appear daunting and over whelming. When the author first began exploring the possibility of pursuing an interstate partnership for agro-terrorism, a number of the author's colleagues said it had considerable merit, but wanted to ensure we had specific goals and objectives. Two of the most challenging components to the process were securing adequate funding and

[1] Alejandro E. Segarra, "Agro-Terrorism Options in Congress," Report for Congress, (Congressional Research Service) July 17, 2002, p. 2.

conducting an effective interagency educational process. The bringing together of state homeland security agencies, state agriculture and animal health organizations and state emergency management to identify the complex issues associated with agro-terrorism was a new adventure for all—with lessons that other states might want to consider in pursuing agreements of their own.

This thesis also suggests broader implications for the way the United States needs to provide for Homeland Security. Under the National Homeland Security Strategy, states must play a critical role in defeating terrorism. As in agro-terrorism, however, many terror threats are likely to cross state lines. The interstate partnership objectives and mechanisms proposed provide a model for states to adapt and revise, as appropriate, in response to other potential threats. Implementing interstate partnerships in areas such as cyber security, critical asset protection and bio-emergency preparedness would enhance the overall national homeland security posture.

Chapter I examines the nature of the threat, and highlights the reasons why states---acting alone---are unable to provide for the security of their own agricultural sector. Chapter II outlines the strategic goals of a multi-state agro-terrorism collaboration, specifically the Multi-State Partnership for Security in Agriculture. Chapter III provides a brief description of interstate compacts and administrative agreements, providing the pro's and con's of each. Chapter IV provides the basic process in used creating an interstate partnership, specifically the Multi-State Partnership for Security in Agriculture.

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II. AMERICAN AGRICULTURE AND A NATION AT RISK

Agriculture is a weak link in the nation's defense against terrorism[2]

Jeff Greco

One month before the terrorist attacks in America on September 11, 2001, a paper written by two prominent observers of global terrorism and political violence was published in a respectable academic journal. The paper provided a comprehensive yet conventional review of terrorist attacks through modern times and around the world. The authors concluded that it would be difficult for terrorists to attack American agriculture with a biological weapon because 1) delivering a biological agent to the target was replete with substantial and serious technical problems, 2) American crop and livestock production was not concentrated sufficiently to be at risk of such an attack, 3) current (i.e. as of August 2001) surveillance and detection systems and networks were sophisticated enough to thwart attempts to disrupt or destroy this asset, and 4) no evidence existed to suggest that any terrorist group in the world had the motivation to harm the America in this way.[3] Thirty days later, these assumptions about American vulnerabilities would seem elementary if not arrogant.

America's agricultural sector is the nation's single largest and potentially most vulnerable terrorist target. In 2001, the food and fiber industry in America employed nearly 24 million people, had an output of over $2 trillion, and generated 12.3 percent of the total gross domestic product.[4] While farming alone constitutes only about 1 percent of the U.S. workforce and less than 1 percent of the nation's gross domestic product, its effect on the American economy is immense.[5] Vast and multiple industries related to

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[2] Jeff Greco, A Report from the Agricultural Committee of the Midwest Legislative Conference, The Council of State Governments, "Agricultural Terrorism in the Midwest: Risks, Threats and State Responses," December 2002.

[3] Jason Pate and Gavin Cameron, "Convert Biological Weapons Attacks against Agricultural Targets: Assessing the Impact against U.S. Agriculture," Belfer Center for Science and International Affairs, ESDP-2001-05, August 2001, p. 3.

[4] "Food Market Structures: the U.S. Food and Fiber System," Economic Research Service, USDA, April 2003, available at www.ers.usda.gov/briefing/foodmarketstructures, accessed September 23, 2003.

[5] Kathryn L. Lipton, William Edmondson and Alden Manchester, "The Food and Fiber System: Contributing to the U.S. and World Economies," USDA Economic Research Service, Agriculture Information Bulletin No. 742, July 1998.

farming, including seed, feed, fertilizer, machinery, food processing, manufacturing, transportation, and exporting, combine to create the largest integrated food and fiber system in the world.

At the heart of this immense system is the heartland of the nation – the Great Plains states and the upper Midwest - and at the heart of the heartland is the state of Iowa. Iowa ranks first in the nation in terms of corn, soybean, egg, and hog production, accounting for 25 percent of America's pork industry, 18 percent of its corn crop, 17.5 percent of its soybean yield, and 12 percent of its egg production.[6] When Iowa's agricultural position is configured with the agricultural strength of the seven states that surround it, the agricultural production in key areas for these eight states as a percentage of total American agricultural output is staggering: 23 percent of America's dairy products, 37 percent of its hogs, 41 percent of its cattle, 64 percent of its soybeans, and 70 percent of its corn.[7] A portion of the states that are a part of the multi-state agricultural security collaborative described in this paper are Illinois, Wisconsin, Kansas, Nebraska, South Dakota, Missouri, Minnesota. Jeff Greco, policy analyst with the Midwestern Office of The Council of State Governments and writer of the report

Agricultural Terrorism in the Midwest writes, "The Midwest, home to more than 80 million cattle, hogs, sheep, goats, and bison, is more economically exposed to the threat of agro-terrorism than any other region in the country."[8]

Both the enormous size and sheer complexity of the industry itself have influenced conventional thoughts about the invulnerability of American agriculture to disruption at the hands of either foreign or domestic terrorists. These factors, coupled with the considerable diversity of American agriculture, lead many Americans in government, business, the media, and on Main Street to conclude that a certain natural

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[6] Iowa Fact Sheet, Data, Economic Research Service, USDA, July 15, 2003, available at www.ers.usda.gov/stateFacts/IA, accessed September 24, 2003.

[7] Fact Sheets, Data for Illinois, Wisconsin, Kansas, Nebraska, South Dakota, Missouri, Minnesota, Economic Research Service, USDA, July 15, 2003, available at www.ers.usda.gov/stateFacts, accessed September 24, 2003.

[8] Jeff Greco, A Report from the Agricultural Committee of the Midwest Legislative Conference, The Council of State Governments, "Agricultural Terrorism in the Midwest: Risks, Threats and State Responses," December 2002, p. 6.

resilience to attack exists in this sector alone that does not exist in any other sector in America's colossal economic infrastructure. The perception prevails that these factors have created some kind of invisible security blanket making our food and fiber system "invulnerable to a catastrophic sub-national BW [biological weapon] attack with a significant economic impact."[9]

This conventional wisdom is buttressed by the notion that agro-terrorism simply is not an adequate platform to produce mass casualties in the range of the fatalities that occurred on September 11, 2001 or higher.[10] In this sense, it would appear to be quite difficult to produce a "weapon of mass destruction" that would compromise hundreds of thousands of acres of corn or wheat or millions of head of hogs or cattle so that thousands of Americans would die from their consumption. Conventional wisdom is probably right on this point, but it is an irrelevant point on which to base security decisions. The disaster preparedness paradigm that leads to this conclusion that American agriculture is safe because it is big and hard to contaminate is itself a faulty paradigm. It assumes too much from a pre-September 11 world and it ignores emerging insights about the strategic and tactical changes occurring in the terrorist mindset.

America is a nation at risk because its food and fiber network, as well as its entire economic system, have become the focus of both international and homegrown terrorist organizations. Hundreds of U.S. agricultural documents translated into Arabic were seized in Afghanistan following the U.S. invasion of that country.[11] The documents were attributed to the al Queda terrorist network and suggest more than a passing interest in American agricultural terrorism.[12] The leader of the al Queda network, Osama bin Laden, quoted on tape on October 6, 2002, emphasized the importance and attractiveness

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[9] Jason Pate and Gavin Cameron, "Convert Biological Weapons Attacks against Agricultural Targets: Assessing the Impact against U.S. Agriculture," Belfer Center for Science and International Affairs, ESDP-2001-05, August 2001, p. 20.

[10] Jeff Greco, A Report from the Agricultural Committee of the Midwest Legislative Conference, The Council of State Governments, "Agricultural Terrorism in the Midwest: Risks, Threats and State Responses," December 2002, p. 4.

[11] Katherine McIntire Peters, "Officials Fear Terrorist Attack on U.S. Food Supply," GovExec.*com*, June 10, 2003, available at http://www.govexec.com/dailyfed/o603/061003kpl, accessed September 24, 2003.

[12] Ibid.

of America's economy in the strategy he is pursuing. "By God, the youths of God are preparing for you things that would fill your hearts with terror and target your economic lifeline until you stop your oppression and aggression."[13] His chief lieutenant, Ayman al-Zawahiri was even more specific on the same tape.

> The settlement of this overburdened account will indeed be heavy. We will also aim to continue, by permission of Allah, the destruction of the American economy.[14]

Domestic terrorist groups such as the Animal Liberation Front (ALF) and the Earth Liberation Front (ELF) have executed 600 violent acts since 1996, causing more than $40 million in damage.[15] The FBI describes these groups as "patchwork confederations of saboteurs" whose agendas include arson and vandalism against individuals or industries perceived to be harming animals or the environment.[16] When ALF and ELF combined with groups such as the Last Chance for Animals and the People for the Ethical Treatment of Animals (PETA), the estimated membership is more than one million Americans.[17] Membership in these organizations does not automatically make an American a domestic terrorist. Indeed, it may be true that only a fraction of those Americans belonging to these organizations actually engage in terrorist activity. However, there should be cause for alarm when the co-founder and president of PETA, Ingrid Newkirk, in an April 2001 Reuters news story titled "Hoping for Disease: PETA Hopes Foot-and-Mouth Strikes in the United States" commented,

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[13] Advisory Panel to Assess Domestic Response for Terrorism Involving Weapons of Mass Destruction [Gilmore Commission], Fourth Annual Report to the President and the Congress, II, Reassuring the Threat, December 15, 2002,Chapter 2, p. 10.

[14] Ibid.

[15] Todd Milbourn, "Lawmakers Target 'Eco-Terrorism'," Star Tribune (Minneapolis), April 7, 2002, available at www.amprogress.org/news/newsprint, accessed September 24, 2003.

[16] Ibid.

[17] Aaron Putze, "Public Must Take a Stand Against Animal Rights," Iowa Farm Bureau, November 2, 2001, available at http://furcommission.com/resource/perspect999ap.htm, accessed September 2003.

> I openly hope that it comes here. It will bring economic harm only for those who profit from giving people heart attacks and giving animals a concentration camp-like existence. It would be good for animals, good for human health and good for the environment.[18]

Rhetoric like this suggests radical American advocacy groups may increasingly be inclined to embrace terrorist-like tactics to imitate the success of foreign terrorist groups. At the very least, the PETA statement sends a strong signal that threats to American agriculture are not beyond our shores. Rather, these "saboteurs" are right at our doors – in the form of our neighbors, co-workers, and friends – and they are Americans.

It is true that American agriculture is vast and diverse and these factors contribute to the sense that this food and fiber system is to some extent immune from catastrophic disruption. However, this system is also highly concentrated. A good example is the livestock industry, which is concentrated in just a few essential geographic sectors: cattle feeding in western Kansas, hogs in Iowa, Nebraska, and North Carolina, and poultry in Virginia, Georgia, Arkansas, Pennsylvania, and Maryland's Eastern Shore district.[19] Furthermore, America's agricultural economy is highly integrated with the global economy. Exports of American agricultural products account for 15 percent of all global agricultural exports. Additionally, the United States in 1998 produced nearly half of the world's soybeans, more than 40 percent of its corn, 20 percent of its cotton, 12 percent of its wheat, and 16 percent of its meat.[20]

Any attack on American agriculture, even one that might be considered minimal and isolated, could have far-reaching economic ramifications in markets worldwide. An economic attack in America becomes an economic attack upon the rest of the world. Essentially, an American vulnerability in agriculture will become a global vulnerability in agriculture. USDA officials estimate that a single agro-terrorist attack on the livestock

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[18] Alan Elsner, Reuters, "Hoping for Disease: PETA Hopes Foot-and-Mouth Strikes in the United States," ABCNews.*com*, April 2, 2001, available at http://abcnews.go.com/sections/us/DailyNews/peta.01402, accessed September 24, 2003.

[19] Joseph W. Foxell, Jr., "Current Trends in Agro-Terrorism (Antilivestock, Anticrop, and Antisoil Bioagricultural Terrorism) and Their Potential Impact on Food Security," *Studies in Conflict and Terrorism*, March 2000, p. 110.

[20] Katherine McIntire Peters, "Officials Fear Terrorist Attack on U.S. Food Supply," GovExec.*com*, June 10, 2003, available at http://www.govexec.com/dailyfed/o603/061003kpl, accessed September 24, 2003.

industry using a highly infective agent could cost the U.S. economy between $10 billion and $30 billion.[21] As this level of impact ripples across international livestock markets, the global impact of an attack on America's livestock could reach into the hundreds of billions of dollars.

In his paper, *Current Trends in Agro-terrorism and Their Potential Impact on Food Security*, Joseph Foxell, Jr. identifies a number of reasons why American agriculture is becoming both a more attractive target of terrorism and more susceptible to devastating disorder.[22]

- The U.S. food business is moving in the direction of centralized ownership and larger individual farms. Already the pork industry is so concentrated that the top 40 producers control 90 percent of production. By the end of this decade, America's domestic beef industry will become organizationally aggregated to the degree that the 30 leading cattle feeding operations will generate 50 percent of all beef products. [Michael Dunn, a bio-terrorism expert at the New York Academy of Sciences, shares this outlook of the future.[23]]
- Intensive-proximity husbandry practices have reduced the free-range movement of farm animals on many of the largest farms, thus making the American poultry and livestock industries more vulnerable to the spread of both indigenous and foreign-originating infectious diseases. A typical poultry farm has between 250,000 and 2 million birds and dairy herds often contain ten thousand cows.
- Higher levels of international air travel have drastically reduced the isolation that had previously protected American poultry, livestock, and field crops from foreign illnesses or pests. This has exacerbated this country's vulnerability to either accidental or deliberate infestation or infection.
- An increasing reliance on pesticides and herbicides to control crop pests such as insects and weeds has established a precursor state, wherein pesticide-immune and herbicide-resistant antagonists could decimate arable crop staples.

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[21] Alejandro E. Segarra, "Agro-Terrorism Options in Congress," Report for Congress, (Congressional Research Service) July 17, 2002, p. 2.

[22] Joseph W. Foxell, Jr., "Current Trends in Agro-Terrorism (Antilivestock, Anticrop, and Antisoil Bioagricultural Terrorism) and Their Potential Impact on Food Security," *Studies in Conflict and Terrorism*, March 2000, pp. 111-113.

[23] Jeff Greco, A Report from the Agricultural Committee of the Midwest Legislative Conference, The Council of State Governments, "Agricultural Terrorism in the Midwest: Risks, Threats and State Responses," December 2002, p. 6.

- A lack of crop diversity renders U.S. farmlands especially vulnerable to "cropicide" agro-terrorist attacks. This dearth of variety has resulted from the American farmer's widespread practice of growing only one to two types of major food crops, as opposed to diversified farming, where different food crops are mixed and rotated to reduce pest damage and keep the soil fertile. The lack of diversity, wherein single crops are grown over thousands of acres, renders the entire crop susceptible to a single pathological organism.
- This lack of diversity is compounded by the fact that 80 percent of the nation's seed derives from one locale, the Idaho valley, due to the exceptionally dry climate in the region.
- A notable percentage of imported hybrid seed used for crop production in the United States comes from just four countries: Mexico, Chile, Iran, and China. Worryingly, the latter two countries are suspected of having covert bio-agricultural weapons development programs. Reliance on so few sources for the purchase of imported seed begets the possibility that agro-terrorists could silently enter diseased seed into the filled orders shipped to the United States.
- America's soil itself is an ignored, and hence, inadequately protected, resource. Perhaps as much as half of the nation's topsoil blanket that existed 50 years ago has been lost due to runoff, intensive heavy equipment usage, and winds. Agro-terrorist schemes that threaten topsoil viability – most likely through the use of a long-acting soil sterilant – pose long-term dangers to America's farmland productivity.
- A variety of pathogenic or market-value inhibiting agents foreign to U.S. farm animals and crops – and hence could spread rapidly in the absence of natural immunities or predators – are readily obtainable from a multitude of overseas sources. It is believed that American agriculture and livestock are highly vulnerable to many of these agents.

As the offensive war on terror accelerates in the world and as U.S. and international law enforcement and intelligence services disrupt the capacity for al Qaeda and similar affiliate groups to conduct mass casualty attacks inside the United States, these groups are likely to utilize smaller-scale tactics against more accessible, softer targets.[24] Perhaps the most under-regarded asset in America in terms of accurate threat

[24] Advisory Panel to Assess Domestic Response for Terrorism Involving Weapons of Mass Destruction [Gilmore Commission], Fourth Annual Report to the President and the Congress, II, Reassuring the Threat, December 15, 2002, p. 10.

assessments, response structures, and preparedness initiatives is American agriculture.[25] A USDA report on agro-terrorism prepared for Congress in 2002 suggested "every link in the agricultural production chain is susceptible to attack with a biological weapon."[26]

Coupled with this apparent and alarming vulnerability is the allure of the novelty of such an attack in America. Al Qaeda has deftly demonstrated its ability to use our own resources against us in its cost-effective use of jetliners careening into the World Trade Center.[27] If similar acts of such dramatic violence are thwarted or crippled through America's heightened security measures implemented through the nation's homeland security initiative, terrorists could turn to other means and other targets to accomplish their goals. This evolution in tactics will be particularly important if more conventional attacks no longer bring the desired substantial outcomes. Foxell summaries this tactical shift and the likely result:

> While in recent decades terrorists have relied on simple, direct, low-technology action (such as hijacking airplanes and ships and truck-bombing), there is a growing threat that some terrorists will resort to agriculture-based strategies in coming years. Walter Laqueur, in his essay *Postmodern Terrorism*, argues that, if terrorists continue to find their presently held conventional weapons satisfactory, they will have no need to use other methods or devices. This would likely exclude their experimentation with anti-livestock, anti-crop, and anti-soil weaponry. However, Laqueur observes, if after years of struggle such groups have made only insignificant progress, they may be tempted to switch to
>
> Armageddon-type strategies, wherein their organization's desperate last gasp may be a suicidal gambit to either succeed or doom themselves, their opponents, and conceivably the rest of the world.[28]

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[25] Testimony of Dr. Peter Chalk, Terrorism, Infrastructure Protection, and The U.S. Food and Agriculture Sector, Senate Subcommittee on Oversight of Government Management, Restructuring and the District of Columbia, October 10, 2001, p. 2.

[26] Alejandro E. Segarra, "Agro-Terrorism Options in Congress," Report for Congress, (Congressional Research Service) July 17, 2002, p. 6.

[27] Ibid., p. 13.

[28] Joseph W. Foxell, Jr., "Current Trends in Agro-Terrorism (Antilivestock, Anticrop, and Antisoil Bioagricultural Terrorism) and Their Potential Impact on Food Security," *Studies in Conflict and Terrorism*, March 2000, p. 126.

He also stresses the new terrorist mindset:

> What we are now confronting is a radically different environment in which religious fanatics, chauvinists, and single-issue extremists can seek to inflict widespread indiscriminate ecological destruction to further their cause, no matter how arcane or idiosyncratic, with no fear of alienating the larger public, because their constituency is limited to a narrow patrimony of followers uninterested in opinions outside of their group…These changes in terrorist motivation and psychology will ultimately reshape the terrorist's choice of targets and weapons agents.[29]

Unfortunately for the American people, an agro-terrorist attack using a biological weapon will not be difficult to execute. There are no great technical or operational difficulties to overcome in this arena. Experts suggest that agricultural agents are easier to prepare than biological agents because source materials are easier to locate from a wide range of plant and animal infective agents on the farm or in the wild.[30] Furthermore,

> the physical resources (i.e. laboratory facilities, calibrated condensing vessels, pre-set gauges, specialty apparatuses, freeze dryers, milling machines, centrifuges, micro-fine air filters, and fermentation tanks) needed for manufacturing such bio-agricultural weapons agents are readily available to almost everyone in the scientific, pharmaceutical, and agribusiness communities. Worse, large amounts of various types of anti-livestock, anti-crop, and anti-soil bio-agricultural agents can be made in high school science laboratories, often within a period of hours or days.[31]

A. AGRO-TERRORISM – A WEAPON OF MASS EFFECT

Many U.S. assumptions about the safety of American agriculture, the risks to the food and fiber system, and even about the tactics of terrorists themselves may be radically out of step with reality. So much attention in this nation before and after September 11, 2001 attacks has been devoted to the term "weapon of mass destruction", few saw that threat relating to agriculture. It is not easily possible to picture a jetliner crashing into a farm field in the middle of Iowa and conceive of anything more than a few scorched acres of corn as the economic aftermath. Again, it is not easily possible to conceive of terrorists, either domestic or foreign-based, having the capacity to produce hundreds of thousands of barrels of herbicide to wipe out millions of acres of grain. As

[29] Ibid., p. 121.

[30] Ibid., p. 108.

[31] Ibid., p. 109.

well, it is difficult to imagine how terrorists could contaminate a sizeable part of the millions of pounds of processed meat consumed in America in a single day. In this current paradigm, it is a struggle to see "mass destruction" as a viable outcome of any kind of terrorist attack on American agriculture – ostensibly the nation's single largest economic asset.

The problem with this paradigm is that the focus of agro-terrorism is on "effect" not on "destruction." The goal of agro-terrorism may be to produce a level of economic harm or disruption that produces a level of fear so as to maximize the loss of social welfare. The effect of agro-terrorism, in terms of the permanent destabilization of the American way of life – American values, traditions, and expectations for the future – will be immeasurably more potent and long-lasting than the explosion of an airplane or a building. The objective of terror is to create fear,[32] and no greater fear could affect more Americans than the fear that the food they eat may not be safe.

In reality, such fear may be superficial or have no basis in fact. Regardless of how grounded the fear might be, the consequences to America's economy from the shock of such an attack and lingering doubts about the efficacy of future security provisions, would create a cascade of negative impacts for months. Not only would there be direct economic losses resulting from lost production in the affected sector, but there would be costs to bear in disease containment measures, such as pharmaceuticals and pesticides, and multiplier effects in related industries such as transportation, processing, and exporting. As one author wrote, "By interrupting the physical supply chain, the terrorist can cause economic harm through an artificial price increase, but by creating fear, and ultimately hysteresis, the terrorist can exacerbate the economic losses by affecting human behavior."[33] This kind of fear will produce a profound loss of consumer confidence, not unlike that caused in the airline and tourist industries following September 11, 2001, that could be difficult to restore fully even after the government has emphatically and repeatedly reassured the American people that conditions are safe.

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[32] Calum G. Turvey, Edourd Maforia, Brian Schilling and Benjamin Onyango, "Economics, Hysteresis and Agro-Terrorism," Food Policy Institute, Rutgers, Working Paper No. WP0703-011, July 27-30, 2003, p. 6.

[33] Ibid.

Many examples exist around the world of severe economic impacts when a nation's food delivery is either rumored to be at risk or attacked. The Chilean grape scare in 1989 that allegedly involved cyanide contamination resulted in a $210 million loss to the industry when consumers stopped buying the produce, even though no poison was ever discovered, no one became ill or died, and no evidence of an actual attack ever materialized.[34] In 1978, Israeli orange exports to Europe were reduced 40 percent after twelve people were injured when they ate oranges contaminated with liquid mercury by the Arab Revolutionary Council.[35] In 2000, Israeli agricultural inspectors discovered that for a year and a half the Palestinian Liberation Organization (PLO) had used counterfeit stamps on expired and salmonella-ridden eggs sold throughout Israel.[36] In April 1988, an Italian group sympathetic to the PLO claimed to have contaminated Israeli grapefruit with poison. Some grapefruit were injected with a harmless substance, but the result was the withdrawal of all Israeli grapefruit from the country.[37] Similarly devastating outcomes are always the result of outbreaks of infectious livestock diseases or of pest infestations. A litany of case studies from around the world document the slaughter of millions of cattle, hogs, and chickens and the destruction of millions of tons of produce from the introduction of contaminating agents.[38]

These documented losses are the result of actual infestations, but the same kind of economic impact could be expected in a contamination scenario grounded more in rumor than in fact. A small and relatively insignificant outbreak of foot-and-mouth disease on an isolated cattle operation in west Kansas could fuel a national firestorm of panicked

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[34] Jeff Greco, A Report from the Agricultural Committee of the Midwest Legislative Conference, The Council of State Governments, "Agricultural Terrorism in the Midwest: Risks, Threats and State Responses," December 2002, p. 3.

[35] Jason Pate and Gavin Cameron, "Convert Biological Weapons Attacks against Agricultural Targets: Assessing the Impact against U.S. Agriculture," Belfer Center for Science and International Affairs, ESDP-2001-05, August 2001, p. 8.

[36] Ibid.

[37] Ibid., p. 9.

[38] Joseph W. Foxell, Jr., "Current Trends in Agro-Terrorism (Antilivestock, Anticrop, and Antisoil Bioagricultural Terrorism) and Their Potential Impact on Food Security," *Studies in Conflict and Terrorism*, March 2000, pp. 113-120.

consumers who would likely stop their beef consumption for weeks or months. The fallout could lead to the slaughter of tens of thousands of head of cattle and include livestock possibly not infected at all.

A Rutgers Food Policy Institute paper *Economics, Hysteresis and Agro-terrorism*, attempts to explain the cycle of human behavior in the economic sector before and after an attack on America's food supply. Prior to an attack, the public may perceive that a risk to the food system exists, but the risk may not be comprehended to the extent that actual buying patterns are substantially altered. Americans may suspect that an attack on the food chain could occur, but may prefer to believe that such an attack is actually quite remote. On the other hand, the public's perception of risk following an agro-terrorist attack may significantly alter their buying habits for a very long time.[39] The authors describe the phenomena as "consumer hysteresis."

> The issue is why consumer resistance persists either when the probabilities of harm are so low, (e.g. BSE and Crautzfeld-Jacob Disease CJD), when terrorist activities were resolved (e.g. Chilean grapes) or safeguards put in place to protect the food supply (e.g. Guatemalan raspberries). One argument is what we will refer to as consumer hysteresis…a phenomena that causes consumers to fail to reverse their consumption habits when the underlying source of uncertainty or ambiguity has reversed itself.[40]

This lingering fear of impending danger, even long after the aftermath of an actual attack, has subsided and demonstrable security measures to prevent future attacks have been implemented, is precisely the kind of "mass effect" an evolving terrorist strategy would aim to achieve. Long-term economic stagnation in the United States and across the world, triggered by a profound loss of consumer confidence, could lead to a worldwide depression and conceivably the destabilization of innumerable governments, including that of the United States. As the Gilmore Commission reported in its fourth report, "Al

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[39] Calum G. Turvey, Edourd Maforia, Brian Schilling and Benjamin Onyango, "Economics, Hysteresis and Agro-Terrorism," Food Policy Institute, Rutgers, Working Paper No. WP0703-011, July 27-30, 2003, p. 7.

[40] Ibid., p. 11.

Qaeda has demonstrated that it can have mass effects – a significant disruption of society, huge economic losses, strong reactions by governments – without the necessity of using an unconventional weapon – a so-called 'weapon of mass destruction.'"[41]

Taken together, these features of the threat to agriculture highlight the need for states to collaborate against the threat. The cross-state integration of agriculture industries; the highly contagious nature of many potential agro-terrorism weapons; the need for coordinated public affairs strategies to respond to the psychological effects of an agro-terror attack; all of these characteristics create an imperative that states explore opportunities to work together.

[41] Advisory Panel to Assess Domestic Response for Terrorism Involving Weapons of Mass Destruction [Gilmore Commission], Fourth Annual Report to the President and the Congress, II, Reassuring the Threat, December 15, 2002, p. 19.

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III. STRATEGIC GOALS OF A MULTI-STATE AGRO-TERRORISM COLLABORATIVE

Given the nature of the threat examined in Chapter I, it is evident that states have a need to collaborate in building the capacity to detect an attack against the agriculture industry. It is also evident there is a need to provide for a stronger preparedness and response capability to address the threat of agro-terrorism. What should multi-state partnerships strive to accomplish? What particular objectives do they need to achieve ultimate coordination and reduction in redundancy? What strategies, plans and programs do they need to identify and develop?

The Multi-State Partnership for Security in Agriculture provides a case study as to how one group of states within the United States are working to answer these questions, with valuable lessons for other regions to examine and (after suitable modification) apply to their own unique requirements and circumstances.

In Brigett's[42] article on state supremacy, she summarizes (paraphrased below) the key benefits that can lead states to collaborate, either through informal cooperation or through formal interstate compacts. Interstate collaborate can:

- Enlarges a state's sphere of power
- Combats federal sensitivity toward state interests
- Negotiation is limited to the states involved, excluding unproductive forces
- Negotiation likely to result in efficiency
- Increases an individual states' representative power
- Allows states to pool resources and those of the federal government

A desire to gain the benefits of collaboration in the realm of agro-terrorism led officials from Iowa, Missouri, Illinois, and Wisconsin to begin exploring the pursuit of a multi-state approach in July 2003.

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[42] M. S. Briggett, State Supremacy in the Federal Realm: The Interstate Compact. Boston College Environmental Affairs Law Review, vol. 12, no. 4 (1995), pp. 751-772. Council of State Governments, Programs, Interstate Compacts, available at http://www.csg.org/CSG/Programs/interstate+compacts/default.htm, accessed August 2003.

The Partnership's mission statement that was ultimately developed recognizes the fundamentally important role states must have in the nation's comprehensive response to terrorism.

> The Multi-state Partnership for Security in Agriculture was created by states to ensure that America's agricultural system is secure, its citizens are safe and its economy is strong. Through this interstate agreement, states will collaborate on surveillance of, preparation for, and response to threats in agriculture, whether intentionally introduced or naturally occurring, and coordinate these efforts with all levels of Government.[43]

During an initial discussion session in July, state officials[44] drafted key partnership principles, including several strategic goals listed below.

- Promote awareness of agro-terrorism vulnerabilities and consequences at all levels of government.
- Build an understanding of common concerns and vulnerabilities with regard to safety and security of the U.S. food supply and agriculture.
- Develop a protocol for resource sharing that addresses the issues of resource coordination, laboratory capacity, information sharing, joint planning, education, training, and exercise opportunities, and interstate surveillance.
- Develop a unified approach with specific security standards to animal and food security, specifically addressing issues regarding disease detection, animal identification, and animal movement, between states, federal agencies, and private industry.
- Develop joint strategies for maintaining public and consumer confidence.

The original discussion group was expanded to encompass additional states and various state government departments, and a kickoff summit was held in Des Moines, Iowa in August 2003. Agency representatives from emergency management, homeland security, agriculture, and state veterinarians attended from the states of Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, South Dakota and Wisconsin. The states of Kentucky and Oklahoma have joined the Partnership since the August summit. Through consensus, the state representatives identified many areas for potential collaboration and agreed to form a partnership specifically designed to address the issues they had identified. The partnership created three workgroups that were asked to focus on

[43] Mission Statement for the Multi-State Partnership for Security in Agriculture, August 2003.

[44] IA, MO, IL, WI.

cooperative resource sharing agreements, state-to-state collaboration, and state-to-federal relations. From this meeting, the partnership created a work plan[45] to structure future activities.

A. COOPERATIVE RESOURCE SHARING AGREEMENTS WORKGROUP

The Cooperative Resource Sharing Agreements Workgroup, led by the State of Missouri, explored the use of resource sharing agreements. The overarching focus would include food safety, including plants, livestock and the safety of the U.S. food supply in the processing and distribution stages. Some of the focus areas for this work group included:

- The Emergency Management Assistance Compact is a classic example of interstate sharing of resources. The workgroup identified the need to explore the use of the Emergency Management Assistance Compact in agricultural disasters. For example, in the past there have been legal questions regarding the reciprocal credentialing and licensing for animal health professionals between states. The workgroup recommended an investigation should be conducted to develop the data and make recommendations for a solution to enable interstate licensing and credentialing of animal health professionals.
- Currently there is a nationwide project underway to type resources. This is a process that develops distinct classification of resources (personnel and equipment) to provide for an interoperable system throughout the nation during a response to an incident. To date, resources utilized to respond to or mitigate an agriculture related incident have not been thoroughly typed. The workgroup recommended this process should be included in the national project.
- The ability for plant and animal health specialists to respond to agro-terrorist attacks of any magnitude requires the availability of rapid and modern diagnostic services either within the state or in relative close proximity to it. The workgroup recommended a thorough evaluation of plant and animal diagnostic capacity be undertaken with an emphasis in sharing of laboratory capacity between states.
- Facilitating the sharing of information to include data to provide for situational awareness

From the focus areas, the group established the following three priorities:

- Explore the Emergency Management Assistance Compact and similar agreements, which includes the license and credential issues

[45] *Multi-State Partnership for Security in Agriculture Work Plan,* August 2003.

- Investigate information sharing and situational awareness between states
- Facilitate the sharing of laboratories and develop an animal pharmaceutical stockpile

B. STATE-TO-STATE WORKGROUP

The State-to-State Workgroup, led by the State of Kentucky, addressed issues of interstate collaboration as it relates to preventing, planning for, and responding to agricultural emergencies. The specific focus areas for this work group included:

- Review and expand on the issues raised in a previous project entitled "The Central States Animal Health Emergency Plan", specifically:
  - Communication protocols
  - Standardization of plans and protocols
  - Livestock movement policies
- Develop a system for interstate communication, alert notification, and surveillance
- Develop a system for joint training and exercising
- Develop a system to share and compare written materials, for example,
  - Emergency response plans
  - Training and Educational materials
  - Exercise resources
- Create a system to support ongoing discussions and information sharing between agencies

From the focus areas, the group identified the following three priorities:

- Interstate and interagency communications working closely with the information sharing and situational awareness subgroup of the resource sharing working group
- Crop security
- Emergency planning and response

C. STATE-TO-FEDERAL WORKGROUP

The State-to-Federal Workgroup, led by the State of Iowa, focused on how the state partners could best affect national policy and standards. The group has worked closely with the Federal departments of Homeland Security and Agriculture, and the U.S. Food and Drug Administration, to affect policy change and influence funding streams.

This group has collectively addressed issues such as the Office of Domestic Preparedness Agriculture Assessment, as well as working with the federal executive and legislative branches to raise awareness of the partnership and its activities.

D. WORKGROUP STRUCTURE

The chart, in Figure 1, is an illustration of the initial workgroup structure. Its intent is to demonstrate the workgroup focus areas and structure are flexible enough to accomplish the overall mission.

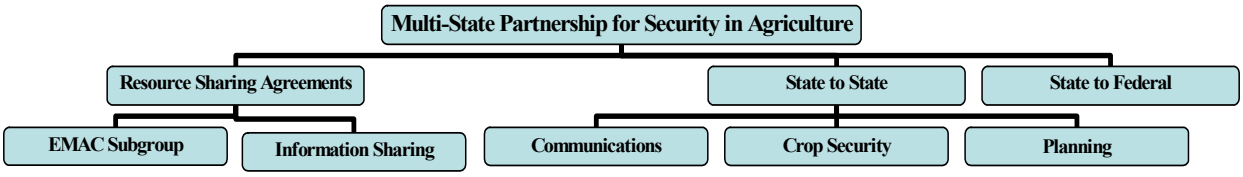

Figure 1. Workgroup Structure

As early as February 2004, the states were already fulfilling one of the most important key principles that were necessary to address prior to taking action, that of building an understanding of common concerns and vulnerabilities with regard to safety and security of the U.S. food supply and agriculture. This was demonstrated through work group efforts, by identifying the need for improved communications, surveillance and cooperation in animal identification.

It became evident that the successful implementation of projects to fulfill the multi-state priorities would require funding. The State-to-Federal Workgroup worked closely, in conjunction with the State of Iowa, to acquire a Department of Homeland Security Grant. The three areas funded to provide resource support to the multi state effort follow.

1. State to State Communications Strategy

The Multi-State Partnership for Security in Agriculture will build upon existing communications systems to develop a comprehensive agriculture communications strategy. This strategy will include a communications plan, risk communications materials, and a system to facilitate interstate and public/private communications.

2. Model Electronic Syndromic Surveillance and Disease Reporting System

The comprehensive system would incorporate a veterinary disease and syndromic surveillance reporting program. Reporting would be done online allowing for ease in compilation and analysis. A model system would be created which could be specialized for each state's needs. This model system would greatly increase prevention and mitigation capacity by providing states the capability to track disease incidence and allowing epidemiological experts to analyze syndromic data.

3. Investigation and Development of Mechanisms for Interstate Collaboration in Animal Tracking

The President directed the federal agencies to coordinate a national animal tracking system. The Multi-State Partnership for Security in Agriculture proposes investing in and developing a mechanism for interstate collaboration in animal tracking. The partnership will investigate issues surrounding information management, emergency notification abilities, GIS mapping functions, electronic health papers, and disease transmission modeling as related to animal tracking to identify areas of potential collaboration. As the USDA and other federal agencies have not officially announced the scope and requirements of the national animal tracking program, this portion of the grant proposal must be flexible.[46]

In addition to the benefits resulting from receipt of the funding, some immediate results have occurred through these efforts as of February 2004:

- Establishment of a committee structure of member states, which will make it possible to move forward in accomplishing the common goals and objectives. This structure also provided the means to identify common concerns and problems; providing for the common focus.
- Opening the lines of communications between states and the agencies on a day to day basis
- Interstate cooperation in the planning process has begun

[46] Iowa Homeland Security & Emergency Management Grant Application to Department of Homeland Security, February 5, 2004.

- Raising the awareness level of the Federal agencies concerning:
  - The importance of agriculture security efforts
  - The need for Federal involvement
  - A better understanding of state challenges

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IV. BUILDING COLLABORATION

The preceding chapter highlighted key substantive areas for collaboration that emerged in discussions by Partnership members. Substantive issues were not the only topics that received attention, however. The issue of how to build effective collaboration, and make the partnership effective, also took a great deal of attention and posed some difficult challenges. As the collaborative process in the Partnership deepened, participants began to confront the question of whether to and how to formalize the emerging collaborative relationships. This chapter provides an outline of the issues the Partnership grappled with in moving beyond the cooperative efforts already described, into more structured and (over time) perhaps even legally binding commitments. The Chapter begins by outlining some of the basic choices that the Partners had to make (including choosing between compacts and administrative agreements as a vehicle to formalize collaborative efforts). The Chapter then examines how participants were able to achieve consensus on the way ahead. Again the intention of this material is to highlight issues that other states may confront in pursuing regional arrangements---for agro-terrorism and other threats to homeland security.

States have a long history of developing formal compacts to address issues of shared concern. In an article by John J. Mountjoy, he succinctly provided:

> Not only are new compacts and revised compacts under development, but the way in which states are working to structure these new multi-state agreements has changed. Before World War II, interstate compacts primarily dealt with state boundaries or the sharing of common waterways. Modern compacts differ greatly, tackling broader public policy issues and forging state partnerships for problem solving and cooperation. Interstate compacts provide states the perfect vehicle to address regional and national issues that are affecting their jurisdictions as public policy issues become more complex and affect more states in our shrinking world, new interstate compacts could prove to be the answer to common problems involving public safety and the justice system, particularly those relating to the need for uniform standards and the sharing of information.

> States should further use interstate compacts to address new problems and create new methods of interstate cooperation. If not, federal preemption in certain policy areas is a distinct possibility.[47]

There are positive implications in using an interstate compact or agreement to implement state and national homeland security strategies. For example, in April 2004, the Iowa Department of Transportation and the Iowa Homeland Security hosted the first multi-state networking workshop for transportation, homeland security, emergency management and law enforcement officials. During the course of this brief workshop, it was evident that keen interest existed in the interchange of information and establishing common policies to address transportation security needs.

A. COMPACTS

Interstate compacts have been used by the states since the inception of the nation to address issues of common concern. Today, every state in the nation utilizes interstate compacts to achieve mutual objectives with one or more other states. Iowa alone is a signatory to at least 21 different statutory interstate compacts.[48]

By definition, a compact is an agreement between two or more states that binds them to the compact's provisions, just as a contract binds two or more parties in a business deal. As such, compacts are subject to the substantive principles of contract law and protection by the constitutional prohibition against laws that impair the obligations of contracts (cf. United States Constitution, Article 1, Section 10).[49]

The process of forming a compact can be divided into three steps: negotiation, ratification, and approval. Negotiation is the process of developing the compact itself to ensure that it includes a clear statement of purpose, the appointment of an administrative

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[47] John J. Mountjoy, Corrections and Parole Trend in 2003: Interstate Compacts: An Alternative for Solving Common Problems Among States, Report on Trends in State Courts, available at http://www.ncsconline.org/WC/Publications/KIS_Parole_Trends03.pdf, accessed April 14, 2004.

[48] Through a search of the Code of Iowa.

[49] Interstate Compacts. Council of State Governments, programs, Interstate Compacts, available at http://www.csg.org/CSG/Programs, accessed August 2003.

agency if appropriate, a delineation of the agencies' functions and duties, the identification of funding sources, the establishment of enforcement provisions, and a description of termination procedures.[50]

Compacts must be ratified by the participating states through a process that includes the state legislatures and the governor. Compacts are ratified by state legislation or by popular vote. Once the legislation is adopted or the ballot measure approved, the governor must sign the compact into law or veto the measure. If the compact is approved through one of these two methods, it becomes a state statute and a binding agreement or contract between the states involved.

Congressional and presidential approval is the actual final step to cement a formal agreement between the states. According to the Constitution's "compact clause", all interstate compacts must receive approval of the United States Congress and the signature of the president. The intent of this requirement is to ensure that state agreements do not intrude upon areas of federal authority, law, or interest.[51]

Congress may grant consent to a compact prior to its formation or once it has been ratified by the states involved. It also has the power to limit or otherwise modify a multi-state compact. It can, with the help of the Supreme Court, compel compliance with compact provisions. Compacts take precedence over conflicting state laws regardless of when the state laws were enacted. Once approved, states may not unilaterally withdraw membership, as termination procedures outlined in the compact itself must be followed. Since compacts are enacted into law and approved by Congress and the president, and are

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[50] Matthew Sundeen and L. Cheryl Runyon, "Interstate Compacts and Administrative Agreements," National Conference of State Legislatures, March 1998, available at www.ncsl.org/programs/esnr/slr238.htm, accessed August 2003.

[51] M. S. Briggett, State Supremacy in the Federal Realm: The Interstate Compact. Boston College Environmental Affairs Law Review, vol. 12, no. 4 (1995), pp. 751-772. Council of State Governments, Programs, Interstate Compacts, available at http://www.csg.org/CSG/Programs/interstate+compacts/default.htm, accessed August 2003.

Note: The State of Iowa's membership in the Emergency Management Assistance Compact (Iowa Code Chapter 29C…can serve as an example for the reader for an excellent interstate compact.

enforced by Constitutional provisions, they are considered the most effective, forceful, and binding method of ensuring interstate cooperation or of resolving interstate concerns, controversies, or conflicts.[52]

B. ADMINISTRATIVE AGREEMENTS

Administrative agreements between states are substantially different from interstate compacts. The most significant difference is that administrative agreements do not require Congressional approval, and as such, in terms of force of law, do not convey the strength and rigidity of compacts. Administrative agreements are either formal or informal.[53]

Formal administrative agreements require states to enact reciprocal statutes that address particular issues, and by enacting such statutes, state officials can enter written cooperative arrangements with other states. Formal agreements may contain a purpose statement, procedures for governing the cooperation, and the establishment of an agreement administrator or commissioner.[54] An example of a formal administrative agreement would be a multi-state lottery, such as the PowerBall Jackpot Lottery, of which Iowa is a member.

Informal administrative agreements are not authorized by state statute and many are not even written documents. The agreement may or may not be a long-term arrangement and may only be used on an as-needed basis. These kinds of agreements are typically *ad hoc* agreements to provide some manner of assistance, or general agreements of understanding regarding a particular issue or concern. Most memoranda of understanding provide the parties with a "guide" to obligations, intentions, and policies, and while they can be written and signed, they are rarely authorized by statute. If a memorandum of understanding were to be authorized by statute, then it would be considered a formal administrative agreement.[55]

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[52]Heron, K. J., The Interstate Compact in Transition: From Cooperative State Action to Congressionally Coerced Agreements. St. John's Law Review, vol. 60, no. 1 (1985), pp. 1-25.

[53] Matthew Sundeen and L. Cheryl Runyon, "Interstate Compacts and Administrative Agreements," National Conference of State Legislatures, March 1998, available at www.ncsl.org/programs/esnr/slr238.htm, accessed August 2003.

[54] Ibid.

[55] Ibid.

Tables 1 and 2[56] provide a cursory strength and weakness comparison of compacts and administrative agreements.

Table 1. Interstate Compacts Strengths/Weaknesses

Strengths	Weaknesses
• Provides a durable, enforceable agreement • Specifically defines the nature and extent of future response collaborations and funding • Identifies when and how services or products are delivered • Backed by federal law and cannot be nullified by unilateral state action • Reduces the need for federal regulations or judicial adjudication of rights	• The approval process is long and complicated • Penalties for non-compliance are a necessary but detracting component • Political opposition of a single member state can change the effectiveness of the entire arrangement

Table 2. Administrative Agreements Strengths/Weaknesses

Strengths	Weaknesses
• Does not require the passage of legislation • Each member state can determine its level of participation without being bound statutorily • Less costly to enact • Easily maintained and deconstructed • Easily revisited and revised with changing political, social, or economic conditions	• Essentially non-enforceable; disposable • Interpretation of informal language may differ • Can be pre-empted or nullified by legislation for other formal arrangements • Undefined responsibilities creates unfulfilled obligations

Due to the nature of the threat and the immediacy of needing to take action the states are moving toward entering into an Administrative Agreement rather than a formal compact.

They felt the approval process is too long and less costly to enact and more importantly it is easily changed given the ever changing threat situation.

Many may have the preconceived notion the creation and building of interstate compacts or administrative agreements are much too difficult to pursue. Some would say the pursuit of interstate agreements and partnerships could divert scarce resources away from individual state and local governments. However, the conscious decision was made

[56] Ibid.

to pursue a multi state partnership to specifically address agro terrorism preparedness requirements, realizing the challenges could be a hindrance to success but with the vision that success would be invaluable to fighting the war on terrorism, specifically, agro-terrorism.

The people of Iowa, as well as the other partner states, recognized that the protection of the U.S. food supply chain is a critically important component of the U.S. national bio-defense system and that the food supply presents an accessible and efficient delivery system for attacks against large populations and economic sectors. The creation of an interstate communications plan, disease specific risk information, a comprehensive interstate communications system, a model electronic syndromic surveillance and disease reporting system, and a mechanism and structure for states to collaborate on animal tracking issues would greatly increase preparedness and response capacity at state, and local levels, as well as provide an excellent point of coordination for the federal government.

The author does not want to undervalue the organizational time and project planning commitments by the partner states. However, it is the author's assertion that the value of collaborating toward common goals and objectives far outweighs the difficulty of addressing the problems on an individual state basis. An interstate compact or administrative agreement[57], in Figure 2, combines strengths and eliminates weaknesses, creating model programs that can be shared between states. It is also the author's

assertion that through the creation of shared programs, not just in agro-terrorism, will reduce costs and duplication, while increasing program consistency and state-to-state interoperability.

[57] Figure 2 is an example Administrative Agreement. (developed by Dr. Ann Garvey, Iowa Homeland Security) utilizing the National Association for Public Health Statistics and Information System Agreement, available at www.paphsis.orgNAPHSIS, accessed on February 2004.

Multi-State Partnership for Security in Agriculture

A Cooperative Agreement of States United
For Agriculture Counter-Terrorism Preparedness

INTERSTATE COOPERATIVE ADMINISTRATIVE AGREEMENT

Through entering this interstate cooperative administrative agreement, the state of _____ recognizes the importance of ensuring that America's agricultural system is secure, its citizens are safe and its economy is strong. Through this interstate cooperative administrative agreement, states will collaborate on surveillance of, preparation for, and response to threats in agriculture, whether intentionally introduced or naturally occurring, and coordinate these efforts with all levels of Government.

Therefore, the state of _____ agrees to the following:

1. To support the Partnership's principles as stated below:
   - Promote awareness of agro-security issues within all levels of government.
   - Develop partnerships among states, federal agencies, producers, and private industry to build a unified approach to agriculture and food security.
   - Explore interstate resource sharing for agriculture emergencies.
   - Create a system for states to participate in joint planning, education, training, and exercise opportunities.
   - Improve coordination and information sharing among agencies at the federal, state, and local levels.
   - Develop joint strategies for maintaining public and consumer confidence.
   - Build state and federal surveillance and response capacity.

2. To establish a Multi-State Partnership for Security in Agriculture Steering Committee and authorize the Steering Committee to make all decisions on behalf of the Partnership.
   - Each State will appoint one member to the steering committee and decisions will be made by majority opinion.

3. To empower the State to State Working Group to act on behalf of the Partnership under the approval of the Steering Committee.
   - The State to State Working Group is composed of volunteer representatives from each participating state agency.
   - The role of the State to State Working Group is to define and develop the priorities, goals, projects, and initiatives of the Partnership and present this information to the Steering Committee for approval.
   - With the approval of the Steering Committee, the State to State Working Group will implement and execute the Partnership's projects and initiatives.

PAMPLE

- To authorize the State to Federal Working Group to represent the Partnership on the Federal level.
- The State to Federal Working Group will serve as the lobbying arm of the Partnership.
- The State to Federal Working Group will monitor legislation and federal regulatory activities that may affect the partnership.
- When appropriate, the State to Federal Working Group will draft position statements and proposals for the Partnership and present this information to the Steering committee for signature and approval.

4. This interstate cooperative administrative agreement is valid for two years from the date of signature and is thereafter renewable on an annual basis by mutual agreement.
   - Each state will review this agreement as needed and make any appropriate changes by mutual written agreement.

Agreed this _____ day of _____ 2004.

_____ _____

Governor Other Appropriate Elected Officials

EXAMPLE

Figure 2. Administrative Agreement Example

To provide the reader with the basic process in creating an interstate partnership, experiences recorded throughout the process in late 2003-early 2004 appear below, and, specifically for the Multi-State Partnership for Security in Agriculture.

C. CONDUCT AN INTERNAL NEEDS ASSESSMENT

- Define the challenges
- Identify the gaps

It is important when advancing such a project that challenges and gaps be identified. For example, a significant need existed to increase the agriculture terrorism preparedness capacity, but there was also a desire to develop capabilities consistent with other states and the federal government. The gap in the lack of federal direction guiding states was recognized and the participants were anxious to begin. The impression was that states were independently addressing their agriculture planning needs and there did not seem to be significant interstate communication. In addition, within any enterprise system, it is imperative that all agencies work together. For an effective interstate agreement, the Governor needs to be involved in the initiative. In addition, in the case of Iowa's interstate agriculture security partnership, it was imperative to have the commitment of the Iowa Secretary of Agriculture, also a statewide elected official, to achieve success.

D. BEGIN ONE-ON-ONE INFORMAL DISCUSSIONS WITH OTHER STAKEHOLDERS

- Pick up the phone and start discussions.
- Are the counterparts in the other states facing similar challenges? If so, how are they addressing them?
- Are there additional issues to address?

This is an important step. It can serve as a validation from the internal to the external process. The process is to begin developing the information and data to ascertain if other states, or stakeholders share the same concerns and just as important, if they have issues and concerns not yet realized.

E. INVENTORY THE STAKEHOLDER'S CONCERNS AND CHALLENGES

- When talking to the Stakeholders, annotate common themes and issues

In the early discussions, it soon became apparent the other states did share the same concerns and challenges in addressing the agro-terrorism preparedness

requirements, and specifically, concerning a lack of awareness and leadership from the federal level and a lack of interstate consistency. This step is invaluable toward the development of common principles, goals and objectives.

F. ASSEMBLE A SMALL DISCUSSION GROUP TO DETERMINE WHETHER STAKEHOLDER COLLABORATION WOULD BE OF MUTUAL BENEFIT

- By having stakeholders attend a group discussion, they will begin to realize what information has already been amassed through one-on-one discussions.
- As a group, decide whether there are benefits of collaboration.

Two conference calls were conducted involving the Homeland Security Directors from Wisconsin, Illinois, Missouri, and Kansas. During this call, the discussion also included whether it would be beneficial to work together, and the consensus was that it would be.

G. OUTLINE THE GROUPS KEY ISSUES AND PRINCIPLES

- Once the group has decided to work together, the first task should be outlining key principles and issues, which aids in focusing the group.

Following the initial conference call, each state annotated their agriculture issues and principles. The lists were compiled to form the group's key issues and principles. This was the beginning of the Multi-State Partnership for Agriculture Security and the development of the mission statement and principles.

H. MEET IN PERSON TO DEVELOP GROUP STRUCTURE AND DIRECTION

- It has been determined that the group wants to work together and the principles outlined, but now it is necessary to decide on how to move forward.
- Logistically how will the collaboration proceed?
- How to divide and conquer the challenges?
- Buy-in is essential.

It is imperative to bring all of the stakeholders together, face-to-face to have open and honest discussions. The Iowa Secretary of Agriculture and the author hosted the first

Agro-Security Summit in August 2003, with six invited states in attendance.[58] At the Summit, the group reached a consensus to develop a workgroup[59] structure to address common issues. Each state appointed a member to each group with a volunteer to chair each committee.

I. FURTHER DEVELOP OBJECTIVES AND GOALS

- How specifically to address the challenges?
- What objectives and goals need to be met?

To develop the common goals and objectives, it is efficient to do so within the established structure. Therefore, in this case, each of the workgroups developed goals and priorities, as referenced in Chapter III. These goals and objectives were very helpful in the search of support.

J. DESIGN AN AWARENESS CAMPAIGN TO GARNER ADDITIONAL FUNDING AND SUPPORT

- How to fund the efforts?
- Whose support is necessary to be successful?
- Utilize the Funding to Establish Tangible and Mutually Beneficial Solutions
- Design programs with visible outcomes.
- In the end, be prepared to document and demonstrate the successes.

When embarking upon an interstate initiative, and with a developed "work-plan" that will serve as the means to achieve the goals and objectives, it is at this point that the resource development process begins. The states continued to emphasize that the federal government should consider Agro-Terrorism Preparedness as an important agenda item. The State to Federal workgroup developed a resource strategy.

Meetings were arranged with key Congressional staff and federal agency representatives to market this plan, build awareness and garner support. Governor Vilsack and the author met with Secretary Veneman and her staff, during which, it became apparent that the United States Department of Agriculture was not going to

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[58] Note: KS, WI, SD, IL, MN, MO Departments of Agriculture, Departments of Homeland Security and Departments of Emergency Management. In addition, we had state based USDA representatives attend.

[59] Note: Workgroups were: State to State; State to Federal and Cooperative Resource Sharing as explained in Chapter III.

support these efforts or lead on their own. At the same time, efforts were also directed toward the United States Department of Homeland Security. Secretary Tom Ridge immediately understood the importance of the interstate efforts in addressing agro-terrorism and made an immediate commitment to support these efforts, which ultimately resulted in a $2 million grant from the Department of Homeland Security to support the Multi-State Partnership for Security in Agriculture.

V. CONCLUSION

This thesis is a call to action for state government officials to demonstrate leadership by aggressively pursuing the development of interstate collaboration for homeland security, in agro-terrorism and beyond. It is not possible to defend American agriculture against foreign or domestic terrorism if multi-state collaborative initiatives focused on food security are not developed. The issues surrounding agro-terrorism are vast and complex and the resources of the Federal government to address these issues are limited and overextended. To achieve substantial levels of detection, preparedness, and response the states must collaborate voluntarily to address mutual concerns, key policies, and strategic operational issues related to agro-terrorism.

Interstate compacts or administrative agreements for agro-terrorism preparedness can serve as a vital component to enhance state abilities to detect, deter, prevent and respond to acts of agro-terrorism. Agriculture production and food processing systems overlap state boundaries. Iowa assets in this area are connected with downstream and upstream with out-of-state assets. Contamination in one area can contaminate multiple areas as goods traverse across state lines. Radiological, biological, and chemical agents and diseases (animal and plant) can cross state boundaries to create national problems requiring regional responses. Psychologically, the Midwest represents the "heartland" of the nation, and agriculture its mainstay. An attack on the nation's food supply/system would be devastating.

The safety of America's food supply has long been a priority for the State of Iowa. Iowa is leading a cooperative effort with nine other states called the Multi-State Partnership for Security in Agriculture. Through the partnership, states collaborate on surveillance of, preparation for, and response to threats in agriculture, whether introduced intentionally or naturally occurring, and coordinate these efforts with all levels of Government. The current participating states include Illinois, Iowa, Kansas, Kentucky, Minnesota, Missouri, Nebraska, Oklahoma, South Dakota, and Wisconsin. Agriculture Secretaries, Homeland Security advisors, Emergency Management directors, and State Veterinarians are represented in the group. The Partnership exemplifies the substantive

benefits that can be derived from interstate collaboration in agro-security. The Partnership also provides a roadmap for other collaborative initiatives, by demonstrating how consensus can be built across state borders despite the difficulties. It is imperative the states combine strengths and eliminate weaknesses, creating model programs to share between states. The creation of shared programs will reduce costs and duplication, while increasing program consistency and state-to-state interoperability.

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